

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	LUMPKIN)	EXAMINER: JOHNSON,
SERIAL NO.:	10/679,128)	MATTHEW A.
FILED:	OCTOBER 3, 2003)	ART UNIT: 3656
TITLE:	SYMMETRIC CLAMP STRUCTURE)	CONFIRMATION NO.: 2259

VIA EFS

Mail Stop: APPEAL BRIEF
Board of Patent Appeals and Interferences
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPEAL BRIEF

Dear Sir:

In regard to the Notice mailed January 11, 2010, Appellant submits the following Appeal Brief.

I. REAL PARTY IN INTEREST

The real party in interest is SRAM Corporation. SRAM Corporation's right to take action in the subject application was established by virtue of the following chain of title:

1. An Assignment from the inventor to Avid, LLC recorded at Reel 104582, Frame 0356.
2. An Assignment from Avid, LLC to SRAM Corporation recorded at Reel 014491, Frame 0358.

II. RELATED APPEALS AND INTERFERENCES

The undersigned legal representative of Appellant hereby confirms that there are no known appeals or interferences relating to the present application, or any parent application, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF THE CLAIMS

Pending claims: 1-17

Cancelled claims: None

Withdrawn claims: None

Appealed claims: 1-17

IV. STATUS OF THE AMENDMENTS

No amendment has been filed subsequent to the September 3, 2009 final rejection. The claims 1-17 set forth in Section VIII accurately reflect the pending claims.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The claims are generally directed to a clamp structure, a method of attaching a clamp to a frame with the clamp structure, a method of manufacturing the clamp structure, and a bicycle brake lever including the clamp structure. Claims 1, 6, 10 and 11 are independent claims. No claim includes means plus function elements as permitted by 35 USC § 112, paragraph six.

Claim 1 as currently written recites a clamp structure comprising a first arm having a distal end defining a first threaded through bore and a second arm having a distal end defining a second threaded through bore, wherein the first threaded through bore and the second threaded through bore are essentially coaxial and essentially the same inner diameter. A screw comprises a head and a shank, with the head being at one end of the shank and the shank having a threaded portion at a second end opposite the first end. The screw further includes a clearance portion between the threaded portion and the head. The screw is configured to threadably engage *either* of the first threaded through bore of the first arm or the second threaded through bore of the second arm such that the head abuts the arm opposite the threaded engagement and the clearance portion resides within the threaded bore opposite the threaded engagement. The structure recited in claim 1 provides a clamp wherein the screw can be inserted into either the first or second through bores of the first and second arms, respectively, and still perform a clamping function. This structure has the advantage of allowing the clamp to function in the event either of the first or second threaded through bores becomes stripped simply by inserting the screw into the opposite through bore.

Claims 2 and 3 further recite limitations directed to the diameter and length of the clearance portion of the screw relative to each of the threaded bores.

Claims 4 and 5 recite the clamp structure connected to a bicycle component and more particularly the bicycle component being a brake lever.

Independent claim 6, which is directed to a method of attaching a clamp to a frame, recites a similar structure discussed above with respect to claim 1, and includes the step of engaging the screw with the clamp by screwing the threaded portion into a threaded engagement with *either* of the first and second through bores such that the head abuts the arm opposite the threaded engagement and the clearance portion clears the threads of the threaded bore opposite the threaded engagement.

Claims 7 and 8, which depend from claim 6, recite the frame as a tubular cycle frame and more particularly that the frame is a tubular bicycle handlebar.

Claim 9 depends from claim 6 and further recites removing the screw from threaded engagement with either of the first and second arms and engaging and tightening the screw in an opposite orientation such that the screw is threadably engaged with the other arm.

Independent claim 10 recites a method of manufacturing a symmetrical clamp structure configured as recited in claim 1. Significantly, claim 10 recites forming identical co-axial cylindrical threaded bores through the distal ends of the first and second arms with each threaded bore having a length less than a select length and forming a clearance portion on the shank of a screw configured to threadably engage the threaded bores through the distal ends of the first and second arms, the clearance portion being of the select length between the head and the opposite end of the shank.

Independent claim 11 is directed to a bicycle brake lever comprising a clamp substantially as recited above with regard to claim 1.

Claims 12 and 13 are dependent from claim 11 and further limit the length and the outer diameter of the clearance portion relative to the threaded bores.

Claims 14-17 depend from claim 1, 6, 10 and 11, respectively, and further recite the clearance portion being non-threaded.

The various embodiments recited in independent claims 6, 10 and 11 and their respective dependent claims provide the advantages discussed above with regard to claim 1. Support for these claim elements may be found in the specification and figures as follows:

1. A clamp comprising: a first arm having a distal end defining a first threaded through bore; a second arm having a distal end defining a second threaded through bore, wherein the first threaded through bore and the second threaded through bore are essentially coaxial and essentially the same inner diameter; and	Page 5, lines 19-24 Fig 2: 12 (clamp) Fig 3: 14 (first arm); 16 (second arm); 18 (first threaded through bore); 20 (second threaded through bore) Figs 3-4B: illustrate the first and second threaded through bores as coaxial and as having the same inner diameter
a screw comprising a head and a shank, the head being at one end of the shank and the shank having a threaded portion at a second end opposite the first end and a clearance portion between the threaded portion and the head, the screw being configured for selective insertion in one of the first and second threaded through bores so that with a threaded engagement between the threaded portion of the shank and one of the first threaded through bore of the first arm and the second threaded through bore of the second arm and the head abutting the other of the first and second arms opposite the threaded engagement, the clearance portion resides within the other of the first and second threaded through bores.	Page 5, line 24 to Page 6, line 9 Fig 3: 22 (screw); 26 (head); 24 (shank); 28 (threaded portion); 30 (clearance portion) Fig 4A (threaded engagement, head abutment, clearance portion within bore) Fig 4B (threaded engagement to either threaded bore)
2. The symmetric clamp structure of claim 1 wherein the clearance portion has an outer diameter sized to clear the first and second threaded bores and a length at least equal to the axial length of each threaded bore.	Page 5, lines 28 to Page 6, line 2 Fig 4A: 30 (clearance portion) Figs 4B
3. The symmetric clamp structure of claim 1 wherein a length of the clearance portion exceeds an axial length of each threaded bore.	Page 5, lines 28 to Page 6, line 2 Fig 4A: 30 (clearance portion) Fig 4B
4. The symmetric clamp structure of claim 1 wherein each of the first and second arms have a proximal end attached to a bicycle component.	Page 5, lines 15-16 Fig 1: 12 (clamp); 10 (brake lever) Fig 2: 12 (clamp); 10 (brake lever)
5. The symmetric clamp structure of claim 4 wherein the bicycle component is a brake lever.	Page 5, lines 15-16 Fig 1: 12 (clamp); 10 (brake lever) Fig 2: 12 (clamp); 10 (brake lever)

6. A method of attaching a clamp to a frame comprising: providing a frame;	Page 5, lines 15-18 Fig 2: 12 (clamp); 13 (handlebar or frame)
providing a symmetric clamp structure comprising a first arm having a distal end defining a first threaded bore, a second arm having a distal end defining a second threaded bore wherein the first threaded bore and the second threaded bore are essentially coaxial and have essentially the same size and pitch threading;	Page 5, lines 19-24 Page 6, line 27-28 Fig 2: 12 (clamp) Fig 3: 14 (first arm); 16 (second arm); 18 (first threaded through bore); 20 (second threaded through bore) Figs 3-4B: illustrate the first and second threaded through bores as coaxial
providing a screw comprising a head and a shank, the head being at one end of the shank and a threaded portion being at a second end of the shank opposite the first end, the threaded portion being sized to threadably engage both the first and second threaded bores, the shank further comprising a clearance portion between the threaded portion and the head;	Page 5, line 24 to Page 6, line 9 Fig 3: 22 (screw); 26 (head); 24 (shank); 28 (threaded portion); 30 (clearance portion) Fig 4A (threaded engagement, head abutment, clearance portion within bore) Fig 4B (threaded engagement to either threaded bore)
engaging the screw with the clamp by selectively inserting the screw into one of the first and second threaded bores and screwing the threaded portion into a threaded engagement with the second or first threaded bore, respectively, such that the head abuts the arm opposite the threaded engagement and the clearance portion clears the threads of the threaded bore opposite the threaded engagement;	Page 5, lines 16-18 Page 6, lines 3-9 Fig 4A (threaded engagement, head abutment, clearance portion within bore) Fig 4B (threaded engagement to either threaded bore)
placing the clamp over the frame so that the frame is received between the first and second arms of the clamp; and	Page 4, lines 1-2 Fig 2: 12 (clamp); 13 (handlebar)
tightening the screw thereby driving the distal ends of the first and second arms toward each other, thereby attaching the clamp to the frame.	Page 4, lines 2-4 Page 6, lines 5-7 Page 7, lines 20-24
7. The method of claim 6 wherein the frame is a tubular bicycle frame.	Page 5: lines 15-18 Fig 2: 13 (frame)

8. The method of claim 6 wherein the frame is a tubular bicycle handlebar.	Page 5: lines 15-18 Fig 2: 13 (handlebar)
9. The method of claim 6 further comprising removing the screw from threaded engagement with either of the first and second arms and engaging and tightening the screw in an opposite orientation such that the screw is threadably engaged with the other arm.	Page 6, lines 3-9 Fig 4A, Fig 4B (threaded engagement to either threaded bore)
10. A method of manufacturing a symmetrical clamp structure comprising: providing a clamp body having a first arm having a distal end and a second arm having a distal end with the distal end of the first arm and the distal end of the second arm being substantially adjacent to each other and defining a gap between the arms;	Page 6, lines 23-25 Fig 1: 32 (clamp body) Fig 4A: 14 (first arm); 16 (second arm) Fig 3: 34 (gap) Figs 3-4B: illustrate distal end of first arm and distal end of second arm substantially adjacent to each other and defining a gap between the arms
forming identical co-axial cylindrical threaded bores through the distal ends of the first and second arms, each threaded bore having a length less than a select length; providing a screw having a head at one end and a threaded shank extending from the head to an opposite end with the threaded shank being sized to threadably engage the threaded bores through the distal ends of the first and second arms; forming a clearance portion on the shank of the select length between the head and the opposite end of the shank such that the clearance portion extends toward but not to the opposite end, leaving a portion of the shank opposite the head threaded;	Page 5, lines 20-28 Page 6, line 23 to Page 7, line 3 Fig 3: 14 (first arm); 16 (second arm); 18 (first bore); 20 (second bore); 22 (screw); 26 (head); 28 (threaded shank); 30 (clearance portion) Fig 4A (threaded engagement) Figs 3-4B: illustrate the first and second threaded through bores as coaxial Figs 3-4B: further illustrate each threaded bore having a length less than a select length and clearance portion on shank having the select length
assembling the clamp by selectively threadably engaging the screw with one of the first and second threaded bores such that the head abuts the arm opposite the threaded engagement and the clearance portion clears the threads of the threaded bore opposite the threaded engagement.	Page 5, line 25 to Page 6, line 9 Fig 4A (threaded engagement, head abutment, clearance portion within bore) Fig 4B (threaded engagement to either threaded bore)

<p>11. A bicycle brake lever comprising: a housing; a lever pivotably attached to the housing; a clamp attached to the housing, the clamp comprising:</p>	<p>Page 5, lines 15-18 Fig 2: 10 (bicycle lever); 12 (clamp)</p>
<p>first and second arms configured to receive a bicycle handlebar axially therebetween, each of the first and second arms having a distal end, the distal ends having a space therebetween, the first arm further having a first threaded through bore at its distal end and the second arm further having a second threaded through bore at its distal end, the first and second threaded through bores being essentially coaxial and of essentially the same inner diameter; and</p>	<p>Page 5, lines 15-24 Fig 1: 14 (first arm); 16 (second arm) Fig 2: 13 (handlebar); illustrates first and second arms configured to receive a bicycle handlebar axially therebetween Fig 3: 18 (first threaded through bore); 20 (second threaded through bore); 34 (gap) Figs 3-4B: illustrate the first and second threaded through bores as coaxial</p>
<p>a screw comprising a head and a shank, the head being at one end of the shank and the shank having a threaded portion at a second end opposite the first end and a clearance portion between the threaded portion and the head, the screw being configured for selective insertion in one of the first and second threaded bores so that with a threaded engagement between the threaded portion of the shank and one of the first threaded through bore of the first arm and the second threaded through bore of the second arm and the head abutting the other of the first or second arms opposite the threaded engagement, the clearance portion resides within the other of the first and second threaded through bores, such that there is no threaded engagement between the threaded portion of the shank and the other of the first and second threaded through bores.</p>	<p>Page 5, line 24 to Page 6, line 9 Fig 3: 22 (screw); 26 (head); 24 (shank); 28 (threaded portion); 30 (clearance portion) Fig 4A (threaded engagement, head abutment, clearance portion within bore) Fig 4B (threaded engagement to either threaded bore)</p>
<p>12. The bicycle brake lever of claim 11 wherein the clearance portion has an outer diameter sized to clear the first and second threaded bores and a length at least equal to the axial length of each threaded bore.</p>	<p>Page 5, line 28 to Page 6 line 2 Fig 4A, Fig 4B (clearance portion within bore has length at least equal to axial length of each threaded bore)</p>

13. The bicycle brake lever of claim 11 wherein a length of the clearance portion exceeds an axial length of each threaded bore.	Page 5, line 28 to Page 6 line 2 Fig 4A, Fig 4B (clearance portion exceeds axial length of each threaded bore)
14. The symmetric clamp structure of claim 1 further comprising the clearance portion being non-threaded.	Page 5, line 28 to Page 6 line 2 Page 7, lines 14-15 Fig 4A, Fig 4B (clearance portion being non-threaded)
15. The method of claim 6 further comprising the clearance portion being non-threaded.	Page 5, line 28 to Page 6 line 2 Page 7, lines 14-15 Fig 4A, Fig 4B (clearance portion being non-threaded)
16. The method of claim 10 further comprising the clearance portion being non-threaded.	Page 5, line 28 to Page 6 line 2 Page 7, lines 14-15 Fig 4A, Fig 4B (clearance portion being non-threaded)
17. The bicycle brake of claim 11 further comprising the clearance portion being non-threaded.	Page 5, line 28 to Page 6 line 2 Page 7, lines 14-15 Fig 4A, Fig 4B (clearance portion being non-threaded)

The above listing is for exemplary embodiments encompassed by the claims and should be considered illustrative in nature only.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The final Office Action was mailed September 3, 2009. Applicant appeals the following final rejections:

- 1) Whether claims 1, 2-4, 6-8, 10, and 14-16 are unpatentable under 35 U.S.C. § 103(a) in view of the combination of Nielsen, U.S. Patent No. 6,186,027 and Hand et al., U.S. Patent No. 1,870,112.
- 2) Whether claim 9 is unpatentable under 35 U.S.C. § 103(a) in view of the combination of Nielsen, U.S. Patent No. 6,186,027, and Hand et al., U.S. Patent No. 1,870,112, and further in view of Duda, U.S. Patent No. 2,287,343.
- 3) Whether claims 1, 4, 5, 11-13, and 17 are unpatentable under 35 U.S.C. § 103(a) as in view of the combination of Gelbein, U.S. Patent No. 5,584,210, and Nielsen, U.S. Patent No. 6,186,027, and further in view of Hand et al., U.S. Patent No. 1,870,112.

VII. ARGUMENT

A. Overview

None of the references cited by the Examiner, Nielsen, U.S. Patent No. 6,186,027, Hand et al., U.S. Patent No. 1,870,112, Duda, U.S. Patent No. 2,287,343, or Gelbein, U.S. Patent No. 5,584,210, teach a clamp, method for attaching a clamp to a frame, a method of manufacturing a symmetrical clamp structure, or a bicycle brake lever as recited in claims 1, 6, 10 and 11, respectively. In particular, none of these references alone or in combination teach a clamp or method of making a clamp wherein the clamp has a first arm defining a first threaded through bore at its distal end and a second arm having a second threaded through bore at its distal end, with the first and second threaded through bores being essentially coaxial and essentially the same inner diameter, and a screw comprising a head and a shank, with the shank having a threaded portion opposite the head and a clearance portion between the head and the threaded portion with the screw configured so that with a threaded engagement between the threaded portion of the shank and *either* of the first threaded through bore of the first arm or the second threaded through bore of the second arm and the head abutting the other of the first and second arms opposite the threaded engagement, the clearance portion resides in the other of the first and second threaded through bores. In other words, no combination of the references teaches a clamp structure where a screw as described above can be selectively inserted in *either* of the first and second through bores and still perform a clamping function.

B. Statement of the Relevant Law Pertaining to 35 U.S.C. § 103(a)

The proper standard for review of claims under 35 U.S.C. § 103(a) is whether the differences between the claimed subject matter and the prior art are such that the claimed subject matter would have been obvious to one of ordinary skill in the art at the time the invention was made. In *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 82 U.P.S.Q.2d (BNA) 1385 (2007), the United States Supreme Court confirmed the following basic obviousness analysis:

In evaluating whether or not an invention is obvious, inquiry into the following three factors must be made:

1. The scope and content of the prior art;
2. The level of ordinary skill in the prior art; and
3. The differences between the claimed invention and the prior art.

See *Graham v. John Deere Co.*, 383 U.S. 1; 86 S. Ct. 684; 15 L. Ed. 2d 545; 148 U.S.P.Q. (BNA) 459 (1966).

The Examiner bears the burden of presenting an un rebutted *prima facie* case of obviousness in order to reject claims under 35 U.S.C. § 103(a). See *In re Deuel*, 51 F.3d 1552, 1557; 34 U.S.P.Q.2d (BNA) 1210 51 F.3d 1552 (Fed. Cir.1995). Thus an applicant on appeal to the Board may overcome the 35 U.S.C. § 103(a) rejection by showing that the Examiner provided insufficient evidence of *prima facie* obviousness.

The Supreme Court confirmed in the *KSR* opinion that a patent examiner or court must articulate a rationale for combining *known elements* from the prior art to formulate an obviousness rejection. The Supreme Court states,

“Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit. See In re Kahn, 441 F. 3d 977, 988 (CA Fed. 2006)” *KSR* at 127 S.Ct. 1740-1741.

Thus, though the Supreme Court has jettisoned the “teaching, suggestion, motivation” rubric, an examiner must still identify a viable reason why a person of ordinary skill would have been led to modify the teachings of a reference to arrive at the Applicant’s claimed invention. *Ex parte Penhasi*, BPAI Appeal No. 2007-2534 (December 13, 2008).

C. Summary of Argument Concerning 35 U.S.C. § 103(a)

The Examiner has not shown each of the recited elements in the prior art. Moreover, while the Examiner has been able to select references showing in isolation various elements of the claimed combinations in the various claims, the Examiner has not articulated and indeed cannot articulate a viable reason why a person of ordinary skill in the art would have been led to combine the teachings of the cited references in a manner resulting in Applicant’s claimed invention.

D. Detailed Arguments

1. Whether claims 1, 2-4, 6-8, 10, and 14-16 are unpatentable under 35 U.S.C. §103(a) in view of the combination of Nielsen, U.S. Patent No. 6,186,027 and Hand et al., U.S. Patent No. 1,870,112

Claims 1-4, 6-8, 10, and 14-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nielsen, U.S. Patent No. 6,186,027 in view of Hand et al., U.S. Patent No. 1,870,112.

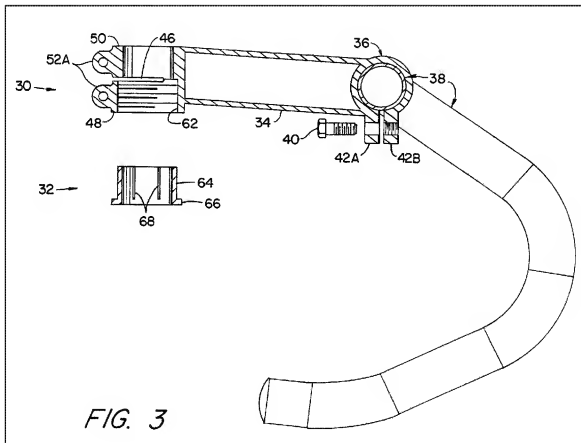
Claim 1 requires a clamp having a first arm defining a first threaded through bore and a second arm defining a second threaded through bore, with the first threaded through bore and the second threaded through bore being essentially coaxial and “*essentially the same inner diameter*.” Claim 1 further requires a screw having a head and a shank with the shank having a threaded portion opposite the head and a clearance portion between the threaded portion and the head. The screw is configured “*for selective insertion in one of the first and second threaded through bores*” so that with a threaded engagement between the threaded portion of the shank and one of the first threaded through bore of the first arm or the second threaded through bore of the second arm and the head abutting the other of the first and second arms opposite the threaded engagement, the clearance portion resides within the other of the first and second threaded through bores. As acknowledged by the Examiner, this last limitation requires that the screw is capable of being screwed into both threaded bores. Final Office Action, p. 2, sec. 2. This relatively simple structure provides a clamp that can be symmetric in that a single screw can be selectively inserted into either threaded bore and the clamp still functions. This enables a device using the clamp to be symmetric and thus, for example, disposed on either a left or right handle bar of a bike without a difference in appearance of the clamp structure. As an additional advantage, if one of the threaded through bores becomes stripped, the clamp can still function by inserting the screw into the stripped through bore so that the threads engage the other through bore.

The Examiner has failed to make a *prima facie* showing of obviousness of independent claim 1 over Nielsen in view of Hand. Simply stated, Nielsen does *not* teach threaded bores of

essentially the same inner diameter and in fact teaches away from threaded through bores of essentially the same inner diameter. Hand does not cure this deficiency.

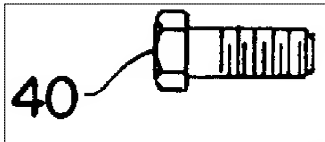
Fig. 3 of Nielsen clearly shows first and second arms 42A, 42B with axially aligned through bores, but only the through bore in the second arm 42B is shown as threaded. The Examiner relies on language at column 3, lines 25-28 to support the first through bore in the first arm 42A as being threaded. Nielsen reads at column 3, lines 25-28 as follows:

“As shown in FIG. 3, the hole in lug 42B is threaded to mate with the threaded shank of screw 40. The hole in lug 42A may but need not be threaded, *but is sized so that screw 40 can be rotated therein.*” (Emphasis added.)



The bolt 40 illustrated in Fig. 3 of Nielsen is a conventional bolt where threads are formed in a threaded portion having an outer diameter equal to an outer diameter of a non-threaded portion of the shaft. This non-threaded portion of the shaft is adjacent the head of the bolt 40 depicted in Fig. 3. In order for the bolt 40 to be fully received in the axially aligned through bore in the first arm 42A, this through bore must have an inner diameter greater than the

outer diameter of the threaded portion and the non-threaded portion of the bolt 40.



Bolt 40 from Fig. 3 of Nielsen, US Patent 6,186,027

Accordingly, if, as suggested in the specification, the through bore 42A is threaded, the inner diameter of the threads would have to clear the non-threaded portion of the bolt if the structure is to function as a clamp configuration indicated in Fig. 3 (i.e., it must be “sized so that the screw 40 can be rotated therein.”). However, in such a configuration the threaded portion of the bolt would necessarily have to clear the threads in 42A without threaded engagement. (This is because as discussed above, the non-threaded portion and the threaded portion of bolt 40 have the same outer diameter.)

Thus, the structure taught in Nielsen would not function as a clamp if the bolt 40 were inserted through the second through bore 42B for at least two reasons. First, the threads of the bolt have an outer diameter less than the inner diameter of the threads in the through bore 42A and there would thus not be threaded engagement between the threaded portion of the bolt 40 and the threads of 42A. Second, the non-threaded portion of the bolt 40 would interfere with the threads of the second through bore 42B such that the bolt could only be screwed into threaded through bore 42B up to the point of the non-threaded portion. Accordingly, modification of Fig. 3 as suggested by the Examiner in light of the Nielsen specification would not meet the threaded bores of essentially the same inner diameter limitation of claim 1.

Moreover, the Federal Circuit has noted that when an Examiner proposes a combination that makes a prior art reference inoperable for its intended purpose, the resulting inoperable prior art reference may be considered to teach away from the proposed combination. See In re Gordon, 733 F.2d 900 (Fed. Cir. 1984). Here, the proposed modification clearly makes the Nielsen reference inoperable as a clamp if the bolt 40 were inserted through the second through

bore 42B. Thus, the proposed combination makes Nielsen inoperable. As a result, the proposed modification teaches away from the Examiner's assertion.

In addition, Nielsen fails to teach a screw configured for selective insertion in one of the first and second threaded through bores so that with a threaded engagement between the threaded portion of the shank and one of the first threaded through bore of the first arm or the second threaded through bore of the second arm and the head abutting the other of the first and second arms opposite the threaded engagement, the threaded portion resides within the other of the first and second threaded through bores. In other words, while the limitations can be met in part by insertion of the bolt 40 into a threaded through bore in 42A as depicted in Fig. 3, it would not be insertable in the second threaded through bore of the second arm 42B in a manner meeting the limitations of claim 1.

Hand does not overcome this failure to show threaded through bores of essentially the same inner diameter. Indeed, Hand teaches away from such a structure. Fig. 2 shows the clamp structure of Hand in cross-section. This structure includes a hole 5 which receives a reduced diameter portion of the bolt, and an axially aligned hole 4, which mates with the threaded portion of the screw 9. The hole 5 has a significantly smaller inner diameter than the hole 4. The different hole size is necessary for the proper operation of the Hand clamp. As is clear from the specification, the Hand structure is intended to function such that with the bolt fully screwed into the hole 4 in a clockwise direction it clamps the body 1. However, with the bolt unscrewed in a counter-clockwise direction, the shoulder 10 contacts the periphery of the smaller bore 5, forcing the clamp apart. See Hand, page 1, lines 60-69.

It should further be noted that simply substituting the bolt of Hand for the screw of Nielsen does not render claim 1 obvious because, as explained above, Nielsen requires threaded through bores of different inner diameters. Thus, the bolt of Hand might be able to perform a clamping function when inserted into one of the through bores, but it could not perform that clamping function when inserted in the other of the through bores because the inner diameter of the other through bore would be larger than the inner diameter of the first through bore. The Federal Circuit has noted that to render an invention unpatentable for obviousness, the proposed prior art must *enable* the invention. See In re Kumar, 418 F.3d 1361 (Fed. Cir. 2005). Here, the bolt of Hand substituted for the screw of Nielsen does not enable the claimed embodiment.

The conclusory statement of the Examiner that one of skill in the art would “readily recognize that the bore 42A would be threaded in the same manner as the threaded bore in 42B” (see Final Office action p. 17) and thus have essentially the same inner diameter utterly ignores the express teaching of Nielsen as discussed in detail above. Certainly the Examiner provides no reason *why* a person of skill in the art would be led to modify Nielsen in this way. No compelling reason for making such a substitution can be shown by the Examiner absent a forbidden hindsight analysis beginning with Applicant’s invention as described in the specification and recited in the claims.

The office action provides no suggestion from the prior art as to why someone would be motivated to combine the Hand device with the Nielsen device even if it were possible to use the Hand bolt in the Nielsen device. In In re Fritch, 972 F.2d 1260 (Fed. Cir. 1992), the Federal Circuit Court of Appeals found that an examiner had inappropriately rejected a claim under 35 USC § 103 stating:

“The mere fact that prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. Wilson and Hendrix fail to suggest any motivation for, or desirability of, the changes espoused by the Examiner and endorsed by the Board.

“Here the Examiner relied upon hindsight to arrive at the determination of obviousness. It is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that ‘[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.’”

In addition, the Federal Circuit has stated that hindsight by the examiner may be inferred when an examiner provides no motivation to combine prior art to arrive at the Applicant’s invention. See In re Kahn, 441 F.3d 977 (Fed. Cir. 2006). The office action provides no reason for selection of Hand’s bolt for use in place of Nielsen’s screw. Therefore, having provided no reason or motivation for modifying Hand and Nielsen in such a way, it is clear that the rejection is clearly relying on hindsight – which is inappropriate for purposes of 35 USC §103.

Finally, a suggestion to combine references cannot require substantial reconstruction or redesign of the prior art. It is clear that to modify Nielsen and/or Hand, a substantial change in their respective operations would be required. In In re Ratti, 270 F.2d 810 (C.C.P.A. 1959), the Court of Customs and Patent Appeals addressed an oil seal for sealing a space between a bore in a housing and a relatively movable shaft centrally located in the bore. On appeal, the CCPA reversed the rejection noting:

“We hold . . . that the combination of Jepson with Chinnery et al. is not a proper ground for rejection of the claims here on appeal. This suggested combination of references would require a substantial reconstruction and redesign of the elements shown in Chinnery et al. as well as a change in the basic principles under which the Chinnery et al construction was designed to operate.”

In re Ratti, 270 F.2d 810 (C.C.P.A. 1959).

Thus, it is inappropriate to combine Nielsen and Hand since to do so would require substantial redesign of Nielsen and Hand to arrive at Applicant’s claimed embodiment.

Accordingly, reconsideration and withdrawal of the rejection of claim 1 and claims 2-4 and 14, which are dependent from claim 1, are respectfully requested.

Claim 6 recites first and second threaded through bores having essentially the same size and pitch threading. Claim 6 is not obvious over the combination of Nielsen and Hand because, as set forth above, Nielsen and Hand cannot be combined to teach the element of first and second threaded through bores having the same size and pitch threading. Accordingly, reconsideration and withdrawal of this rejection of claim 6 and claim 7-8 and 15, which are dependent from claim 6, are respectfully requested.

Claim 10 recites forming “identical co-axial cylindrical threaded through bores through the distal ends of the first and second arms.” As discussed above with respect to claim 1, none of the applied references alone or in combination teach identical coaxial threaded through bores. Thus, reconsideration and withdrawal of the rejection of claim 10 and claim 16, which is dependent from claim 10, are respectfully requested.

2. Whether claim 9 is unpatentable under 35 U.S.C. § 103(a) in view of the combination of Nielsen, U.S. Patent No. 6,186,027, and Hand et al., U.S. Patent No. 1,870,112, and further in view of Duda, U.S. Patent No. 2,287,343

Claim 9 is rejected under 35 U.S.C. § 103(a) as being obvious over Nielsen in view of Hand and further in view of Duda, U.S. Patent No. 2,287,343.

Claim 9 is dependent from claim 6. Duda fails to overcome the deficiencies of Nielsen in view of Hand discussed above with respect to claim 6. Namely, Duda does not teach opposing threaded through bores of essentially the same size. Instead, Duda teaches a threaded opening 8 and opening 10 which is unthreaded. Only in one orientation, namely when the threaded bolt 9 is inserted first in the unthreaded hole 10, can the device function as a clamp. See column 2, lines 39-44. Of course, one skilled in the art would understand that the hole 10 must have a larger inner diameter than the hole 8 or the shaft of the bolt 9 cannot be slidably received in the unthreaded opening 10. Thus, reconsideration and withdrawal of rejection of claim 9 are respectfully requested.

3. Whether claims 1, 4, 5, 11-13, and 17 are unpatentable under 35 U.S.C. § 103(a) as in view of the combination of Gelbein, U.S. Patent No. 5,584,210, and Nielsen, U.S. Patent No. 6,186,027, and further in view of Hand et al., U.S. Patent No. 1,870,112

Claims 1, 4, 5, 11-13 and 17 stand rejected under 35 U.S.C. § 103(a) as being obvious over Gelbein, U.S. Patent No. 5,584,210 in view of Nielsen and further in view of Hand

Gelbein does not overcome the deficiencies of the teachings of Nielsen and Hand. Specifically, Gelbein does not teach opposing threaded through bores having essentially the same inner diameter. Thus, claim 1 and its dependent claims (4 and 5) cannot be rendered obvious by this combination of references.

Claim 11 also includes the limitation “first and second threaded through bores being essentially coaxial and of essentially the same inner diameter.” Thus, claim 11 cannot be rendered obvious by a combination of Gelbein, Nielsen and Hand for the same reasons discussed above with respect to claim 1. Likewise, claims 12, 13 and 17, which are dependent from claim 11, cannot be rendered obvious by this combination of references. Thus, reconsideration of and withdrawal of these grounds of rejection are respectfully requested.

VIII. CLAIMS APPENDIX

1. A clamp comprising:
 - a first arm having a distal end defining a first threaded through bore;
 - a second arm having a distal end defining a second threaded through bore, wherein the first threaded through bore and the second threaded through bore are essentially coaxial and essentially the same inner diameter; and
 - a screw comprising a head and a shank, the head being at one end of the shank and the shank having a threaded portion at a second end opposite the first end and a clearance portion between the threaded portion and the head, the screw being configured for selective insertion in one of the first and second threaded through bores so that with a threaded engagement between the threaded portion of the shank and one of the first threaded through bore of the first arm and the second threaded through bore of the second arm and the head abutting the other of the first and second arms opposite the threaded engagement, the clearance portion resides within the other of the first and second threaded through bores.
2. The symmetric clamp structure of claim 1 wherein the clearance portion has an outer diameter sized to clear the first and second threaded bores and a length at least equal to the axial length of each threaded bore.
3. The symmetric clamp structure of claim 1 wherein a length of the clearance portion exceeds an axial length of each threaded bore.
4. The symmetric clamp structure of claim 1 wherein each of the first and second arms have a proximal end attached to a bicycle component.
5. The symmetric clamp structure of claim 4 wherein the bicycle component is a brake lever.
6. A method of attaching a clamp to a frame comprising:
 - providing a frame;

providing a symmetric clamp structure comprising a first arm having a distal end defining a first threaded bore, a second arm having a distal end defining a second threaded bore wherein the first threaded bore and the second threaded bore are essentially coaxial and have essentially the same size and pitch threading;

providing a screw comprising a head and a shank, the head being at one end of the shank and a threaded portion being at a second end of the shank opposite the first end, the threaded portion being sized to threadably engage both the first and second threaded bores, the shank further comprising a clearance portion between the threaded portion and the head;

engaging the screw with the clamp by selectively inserting the screw into one of the first and second threaded bores and screwing the threaded portion into a threaded engagement with the second or first threaded bore, respectively, such that the head abuts the arm opposite the threaded engagement and the clearance portion clears the threads of the threaded bore opposite the threaded engagement;

placing the clamp over the frame so that the frame is received between the first and second arms of the clamp; and

tightening the screw thereby driving the distal ends of the first and second arms toward each other, thereby attaching the clamp to the frame.

7. The method of claim 6 wherein the frame is a tubular bicycle frame.
8. The method of claim 6 wherein the frame is a tubular bicycle handlebar.
9. The method of claim 6 further comprising removing the screw from threaded engagement with either of the first and second arms and engaging and tightening the screw in an opposite orientation such that the screw is threadably engaged with the other arm.
10. A method of manufacturing a symmetrical clamp structure comprising:
providing a clamp body having a first arm having a distal end and a second arm having a distal end with the distal end of the first arm and the distal end of the second arm being substantially adjacent to each other and defining a gap between the arms;

forming identical co-axial cylindrical threaded bores through the distal ends of the first and second arms, each threaded bore having a length less than a select length;

providing a screw having a head at one end and a threaded shank extending from the head to an opposite end with the threaded shank being sized to threadably engage the threaded bores through the distal ends of the first and second arms;

forming a clearance portion on the shank of the select length between the head and the opposite end of the shank such that the clearance portion extends toward but not to the opposite end, leaving a portion of the shank opposite the head threaded;

assembling the clamp by selectively threadably engaging the screw with one of the first and second threaded bores such that the head abuts the arm opposite the threaded engagement and the clearance portion clears the threads of the threaded bore opposite the threaded engagement.

11. A bicycle brake lever comprising:

a housing;

a lever pivotably attached to the housing;

a clamp attached to the housing, the clamp comprising:

first and second arms configured to receive a bicycle handlebar axially therebetween, each of the first and second arms having a distal end, the distal ends having a space therebetween, the first arm further having a first threaded through bore at its distal end and the second arm further having a second threaded through bore at its distal end, the first and second threaded through bores being essentially coaxial and of essentially the same inner diameter; and

a screw comprising a head and a shank, the head being at one end of the shank and the shank having a threaded portion at a second end opposite the first end and a clearance portion between the threaded portion and the head, the screw being configured for selective insertion in one of the first and second threaded bores so that with a threaded engagement between the threaded portion of the shank and one of the first threaded through bore of the first arm and the second threaded through bore of the second arm and the head abutting the other of the first or second arms opposite the threaded engagement, the clearance portion resides within the other of the first and second threaded through bores, such that there is no threaded engagement between the threaded portion of the shank and the other of the first and second threaded through bores.

12. The bicycle brake lever of claim 11 wherein the clearance portion has an outer diameter sized to clear the first and second threaded bores and a length at least equal to the axial length of each threaded bore.

13. The bicycle brake lever of claim 11 wherein a length of the clearance portion exceeds an axial length of each threaded bore.

14. The symmetric clamp structure of claim 1 further comprising the clearance portion being non-threaded.

15. The method of claim 6 further comprising the clearance portion being non-threaded.

16. The method of claim 10 further comprising the clearance portion being non-threaded.

17. The bicycle brake of claim 11 further comprising the clearance portion being non-threaded.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.

XI. CLOSING REMARKS

For the foregoing reasons, Applicant submits that the rejection of claims 1-17 under 35 U.S.C. § 103(a) is improper and that claims 1-17 are patentable. Accordingly, Applicant respectfully requests that the rejections of the Examiner be reversed.

The fee associated with the filing of an Appeal Brief has been previously paid. The undersigned hereby authorizes the charge of any required fees not included or any deficiency of fees submitted herewith to be charged to deposit account number 19-5117.

Respectfully submitted,

/TD Bratschun/

Date: 2/12/10

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